

Understanding Financial Literacy Evidence from Kolkata's Gen Z

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Abstract:- This paper seeks to explore the state of financial literacy of Gen Z employees in Kolkata to establish the extent of their capacity to make sound financial decisions. As India has a large population of the young generation, it is equally important to understand the perception of the youth regarding financial literacy for the country's economic advancement. The study uses primary data collected from respondents using a structured questionnaire among adults aged 18-29 years. The statistical tests used to analyze the data included ANOVA and ROC Curve, while data analysis was performed using Microsoft Excel and SPSS. These results suggest that the degree of financial literacy is not affected by age or sex but by education level and type. These findings are evidence that further supports the need for effective financial education strategies to improve financial literacy among young employees and foster more and improved financial decisions in the economy.

Keywords *Financial Literacy, Generation Z, Kolkata, Financial Decision-Making, Educational Influence, Socioeconomic Factors*

I. INTRODUCTION

Complicated financial products, low level of awareness, and lack of knowledge about financial matters make the want of financial literacy noteworthy. The level of financial literacy differs from individual to individual.

A country like India with a high young demographic dividend and socioeconomic diversities should research this topic. With 65 percent of its population under the age of 35 years, India today asserts one of the largest available workforces in the world. A large segment of this demographic belongs to the Gen Z group. So, measuring financial literacy among people under the age of 28 becomes important.

This study focuses on financial literacy among Generation Z employees and examines how well-equipped they are to make financial decisions. The research also concentrates on their sources, their knowledge, and the challenges faced by them in financial matters.

II. LITERATURE REVIEW

(Chen and Volpe (2002) examine personal finance knowledge in terms of college students' general personal finance, savings and borrowings, insurance and investment. It seems that men have more advanced personal finance and welfare knowledge than women. The level of personal finance knowledge is related to education and experience.

Lusardi (2008) financial illiteracy seems to be widespread in the U.S. and significant amongst some demographic populations, such as low-educated, women, African-Americans, and Hispanics. For example, about half of older workers knew very little about their pensions, and the majority of workers new little about Social Security benefit rules.

Jappelli (2009) carried out a broad study of global literacy, surveying executives in up to 55 countries in the period of 1995-2008. Again, there are significant cross-country differences in the calculation of the probability of regression, suggesting that literacy is positively affected by educational attainment, social interactions, and institutions that enforce saving for retirement through social security contributions.

West (2012) concludes that merely being financially literate does not necessarily lead to good financial behavior. Financial literacy is a contributor to good consumer financial behavior. Consumers can benefit from financial literacy programs aimed not only at teaching financial markets and products but also at their psychological biases and limitations. Consumers can also benefit from adjusting product regulations to shield them from multi-layered, ambiguous, and unsuitable financial products.

Chakrabarty (2013) main issues in financial literacy in India: are related to the necessity of financial literacy, the primary target audience, and the recommendations for improvements in literacy levels so that national growth and development are supported.

Kumar and Anees (2013) address high-definition financial literacy and education for a developing, fast-growing economy such as India. The study explores various aspects, including the importance and scope of financial education, its determinants, and the role of regulatory authorities. They recommend focusing on young investors to enhance financial well-being in India.

Agarwalla et al. (2013) explore the influence of demographic factors on young working in urban India and compare these with those existing globally. They take the analysis further to explore the association between demographic variables and financial literacy.

Sekar and Gowri (2015) measure the financial literacy of Generation Z employees and their readiness to make financial decisions.

Bahadur (2015) identifies financial literacy and financial inclusion as the two pillars of the economy and assesses the current status of the sector in India. This paper looks at an increased understanding of financial awareness and public perception of financial schema to be able to present policy suggestions for enhanced financial literacy.

Verma et al. (2017) examine the current status of financial education in India, delving into initiatives adopted by the RBI, SEBI, and IRDA. The authors offer recommendations to enhance financial literacy in the country.

Singla (2017) highlights the role of the Reserve Bank of India, Securities and Exchange Board of India, and Insurance Regulatory and Development Authority in enhancing financial literacy as regulatory bodies. It also evaluates the present status and finds ways to enhance financial literacy to support economic growth.

Rawat and Gambhir (2017) identify the deficiency of financial literacy in the Indian economy, considering governmental initiatives, policies, and infrastructural challenges. The paper underlines the importance of financial literacy for both individuals and the economy.

Agarwal et al. (2017) also present their future plans to make the population financially literate through curricular changes in schools. They have also conducted an impact-analysis study of these proposed changes, alongside initiatives undertaken by the financial regulators for the promotion of financial education.

Surendar and Sarma (2017) explore the level of financial literacy among teachers from institutions of higher learning and its impact on financial planning. The financial literacy of faculty teaching in non-technical subjects is compared with that of technical subjects.

Gupta (2017) tests financial literacy levels in Delhi and the relationship between financial literacy and demographic factors, which include age, gender, occupation, marital status, education, and income.

Dube and Asthana (2017) compare the level of financial literacy between Uttar Pradesh and the Central Zone States of India. They broadly discuss the key constituents of financial literacy and its significance in the Indian context, considering the pre-financial inclusion scenario in Uttar Pradesh and the financial inclusion scenario in the Central Zone States.

Sharma (2017) attempts to identify the factors that contribute to low financial literacy in Punjab and to gauge the policy measures that need to be taken up so that literacy levels, especially financial, can be improved upon to ensure financial inclusion. The study uses primary data to survey the financial literacy across the main three districts of Punjab.

Research has been conducted worldwide to measure the level of financial literacy. Also, financial literacy surveys have been conducted at the country level by the governments. Most of the surveys have thrown light on their poor level of financial literacy. This study focuses on financial literacy among Generation Z respondents and examines how well-equipped they are to make financial decisions. The research also concentrates on their sources, their knowledge, and the challenges faced by them in financial matters. Research conducted among the young generation is relevant as the young generation's decisions influence the future of the nation, and the financial decisions of this generation can only be efficient if they are financially literate. Thus, this study ascertains their financial literacy level and suggests measures to improve them, in turn, contributing to the future of the country.

III. OBJECTIVES

- To measure the level of financial literacy of young employees.
- To find out the relationship between financial literacy and various demographic and socio-economic factors.

IV. DATA & METHODS

A. Data Collection

This study is conducted with the use to primary data. However, several research papers have been consulted to understand the concepts and framework of conducting the research. Data from the respondents is collected by using a structured questionnaire. Questions regarding 6 demographic variables, and 14 financial literacy questions were asked.

B. Sampling Design

For the study, a survey is conducted among the young generation i.e. persons within the age group 18-29, of Kolkata. A total of 101 respondents constitute a sample for this study. Respondents are to be selected using convenience sampling.

C. Tools Used

Microsoft Excel is used to compile and code the data. SPSS is used to analyse it by performing tests on it. To measure the financial literacy level, questions about personal finance are asked of the respondents. The questions to measure respondents' knowledge in the areas of savings & borrowings, insurance, investments, financial decision-making, and financial opinions/habit is asked. The total score for each respondent is calculated. ROC Curve is used to find the cut-off point to distinguish between financially literate and financially illiterate respondents. Hypotheses are developed to find the association between financial literacy level and age, gender, educational qualification, educational

stream, student/working status and family income. For the purpose of testing these hypotheses ANOVA is be used.

V. RESULTS & DISCUSSIONS

A. Reliability Test

Reliability shows the stability and consistency of results. Reliability assesses the quality of the measurement procedure used to collect data. For the results from a study to be considered valid, the measurement procedure must first be reliable.

In this study for assessing the reliability, Cronbach's Alpha has been computed. A value of Cronbach's Alpha more than 0.7 signifies that the data is reliable.

Table 1: Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.711	14

In this case the value of Cronbach's Alpha is 0.711, thus we can say that the data is reliable.

B. Distinction Between Financially Literate and Financially Illiterate Respondents

In order to distinguish between financially literate and financially illiterate respondents, we use a Receiver Operating Characteristic (ROC) Curve.

In it, the true positive rate (Sensitivity) is plotted in function of the false positive rate (100-Specificity) for

different cut-off points. Each point on the ROC curve represents a sensitivity/specificity pair corresponding to a particular decision threshold. The closer the ROC curve is to the upper left corner, the higher the overall accuracy of the test.

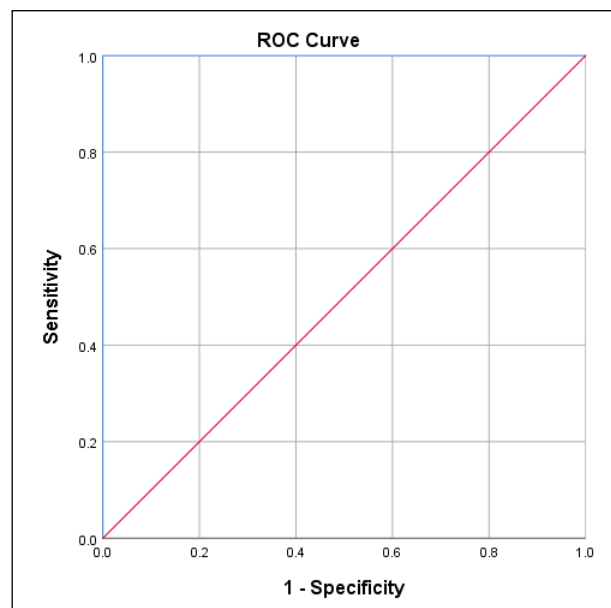


Fig 1: ROC Curve

To find the cut off value we need to find the point on the ROC Curve in the upper left corner, the co-ordinates of this point is found to be (0,1).

Table 2: Coordinates of the ROC Curve

Coordinates of the Curve					
Test Result Variable(s): Score					
Positive if Greater Than or Equal To ^a	Sensitivity	1 - Specificity	Positive if Greater Than or Equal To ^a	Sensitivity	1 - Specificity
6.00	1.000	1.000	54.50	.833	.000
9.00	1.000	.976	56.00	.783	.000
11.50	1.000	.951	57.50	.767	.000
13.50	1.000	.878	58.50	.700	.000
17.00	1.000	.829	59.50	.683	.000
20.00	1.000	.780	60.50	.667	.000
22.00	1.000	.756	61.50	.633	.000
24.00	1.000	.732	62.50	.583	.000
25.50	1.000	.707	63.50	.567	.000
27.00	1.000	.610	64.50	.533	.000
30.00	1.000	.561	65.50	.500	.000
32.50	1.000	.537	67.00	.467	.000
33.50	1.000	.390	68.50	.400	.000
34.50	1.000	.366	70.50	.333	.000
35.50	1.000	.317	72.50	.300	.000
38.00	1.000	.244	73.50	.267	.000
40.50	1.000	.195	74.50	.250	.000
42.50	1.000	.171	75.50	.233	.000
44.50	1.000	.146	77.00	.183	.000
46.00	1.000	.098	78.50	.167	.000
47.50	1.000	.049	81.00	.100	.000

48.50	1.000	.024	84.00	.067	.000
49.50	1.000	.000	87.50	.050	.000
50.50	.950	.000	92.00	.033	.000
52.50	.883	.000	95.00	.000	.000

From this table, we find that the point (0,1) corresponds to the value 49.50. Thus, respondents below the score of 49.50 are financially illiterate and those with scores above 49.50 are financially literate

C. Hypothesis Testing

➤ Association Between Age and Financial Literacy Level

Table 3: Descriptive Statistics of Age and Financial Literacy Level

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
18-20	18	46.28	20.297	4.784	12	78
21-23	58	53.52	21.503	2.824	7	94
24-26	23	49.48	19.975	4.165	15	90
27-29	2	76.00	25.456	18.000	58	94
Total	101	51.75	21.166	2.106	7	94

It can be observed that the age group 27-19 has the highest mean literacy score of 76, whereas the lowest literacy score is of the age group 18-20.

- **Null Hypothesis:** There is no significant relation between Age and Financial Literacy Level
- **Alternate Hypothesis:** There is a significant relation between Age and Financial Literacy Level

Table 4: ANOVA of Age and Financial Literacy Level

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2014.979	3	671.660	1.523	.213
Within Groups	42785.833	97	441.091		
Total	44800.812	100			

The p value in this case is 0.213, which is more than 0.05; thus, we accept the null hypothesis that age and financial literacy level are not related. Therefore, it is evident that the financial literacy level does not depend on age.

➤ Association Between Gender and Financial Literacy Level

Table 5: Descriptive Statistics of Gender and Financial Literacy Level

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Male	48	53.42	22.118	3.193	12	94
Female	53	50.25	20.359	2.797	7	83
Total	101	51.75	21.166	2.106	7	94

Table 6: ANOVA of Gender and Financial Literacy Level

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	253.334	1	253.334	.563	.455
Within Groups	44547.478	99	449.975		
Total	44800.812	100			

In this case, we observe that the financial literacy is slightly higher for males. The mean financial literacy score for males is 53.42, whereas that for females is 50.25.

- **Null Hypothesis:** There is no significant relation between Gender and Financial Literacy Level

- **Alternate Hypothesis:** There is a significant relation between Gender and Financial Literacy Level

The p value in this case is 0.455, which is more than 0.05; so, we accept the null hypothesis that gender and financial literacy level are not related. Therefore, it is found that financial literacy and gender are independent.

➤ *Association Between Educational Qualification and Financial Literacy Level*

Table 7: Descriptive Statistics of Educational Qualification and Financial Literacy Level

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Secondary	3	25.00	11.790	6.807	12	35
Higher Secondary	18	51.89	17.763	4.187	21	78
Graduate	38	46.84	22.524	3.654	7	85
Post Graduate	42	58.05	19.544	3.016	15	94
Total	101	51.75	21.166	2.106	7	94

Here it is observed that the mean financial literacy score is the highest for post graduates and the lowest for secondary qualified respondents. But, the scores for graduates are found to be lower than higher secondary qualified respondents.

- **Null Hypothesis:** There is no significant relation between Educational Qualification and Financial Literacy Level
- **Alternate Hypothesis:** There is a significant relation between Educational Qualification and Financial Literacy Level

Table 8: ANOVA of Educational Qualification and Financial Literacy Level

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4728.077	3	1576.026	3.815	.012
Within Groups	40072.735	97	413.121		
Total	44800.812	100			

The p value is 0.012 which is less than 0.05, thus the null hypothesis of educational qualification and financial literacy level being not related is rejected. So, the educational qualification is playing a role in determining the financial literacy level.

➤ *Association Between Educational Stream and Financial Literacy Level*

Table 9: Descriptive Statistics of Educational Stream and Financial Literacy Level

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Science	20	46.40	24.152	5.400	7	94
Commerce	71	55.30	19.623	2.329	11	94
Humanities	10	37.30	18.886	5.972	12	69
Total	101	51.75	21.166	2.106	7	94

The mean literacy score can be found to be the highest for Commerce stream respondents, and the lowest among Humanities stream respondents.

- **Null Hypothesis:** There is no significant relation between Educational Stream and Financial Literacy Level
- **Alternate Hypothesis:** There is a significant relation between Educational Stream and Financial Literacy Level

Table 10: ANOVA of Educational Stream and Financial Literacy Level

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3553.123	2	1776.562	4.221	.017
Within Groups	41247.689	98	420.895		
Total	44800.812	100			

The p value recorded in this case is 0.017, which is found to be less than 0.05. This results in rejecting the null hypothesis that educational stream and financial literacy level are not related. Therefore, it concluded that the financial literacy scores vary according to the educational stream.

➤ *Association Between Studying/Working Status and Financial Literacy Level*

Table 11: Descriptive Statistics of Studying/Working Status and Financial Literacy Level

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Working	18	58.72	21.554	5.080	19	94
Student	79	50.39	20.854	2.346	7	85
Part-time Working	4	47.25	25.038	12.519	15	76
Total	101	51.75	21.166	2.106	7	94

It can be seen that the financial literacy level is a little higher at 58.72 for working respondents, whereas it is lower for both students and part-time workers at 50.39 and 47.25 respectively.

- **Null Hypothesis:** There is no significant relation between Studying/Working Status and Financial Literacy Level
- **Alternate Hypothesis:** There is a significant relation between Studying/Working Status and Financial Literacy Level

Table 12: ANOVA of Studying/Working Status and Financial Literacy Level

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1101.615	2	550.808	1.235	.295
Within Groups	43699.197	98	445.910		
Total	44800.812	100			

The p value observed here is 0.295 which is more than 0.05, thus we need to accept the null hypothesis of studying/working status and financial literacy level not being related. So, we can say that the studying/working status does not affect the financial literacy level.

➤ *Association Between Family Income and Financial Literacy Level*

Table 13: Descriptive Statistics of Family Income and Financial Literacy Level

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Below 250000	23	37.17	17.544	3.658	11	76
250000 - 500000	31	54.81	19.944	3.582	12	85
500000 - 1000000	22	54.14	22.548	4.807	7	94
Above 1000000	25	59.28	19.041	3.808	23	94
Total	101	51.75	21.166	2.106	7	94

The financial literacy score is found to be the lowest for respondents with a family income of less than Rs. 250000 and highest for respondents with a family income of more than Rs. 1000000

- **Null Hypothesis:** There is no significant relation between Family Income and Financial Literacy Level
- **Alternate Hypothesis:** There is a significant relation between Studying/Working Status and Financial Literacy Level

Table 14: ANOVA of Family Income and Financial Literacy Level

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6719.038	3	2239.679	5.705	.001
Within Groups	38081.774	97	392.596		
Total	44800.812	100			

The p value computed in this case is 0.001 which is less than 0.05, thus the null hypothesis of family income and financial literacy level not being related is rejected. Thus, family income of respondents does affect the financial literacy score.

VI. CONCLUSION

A. Financial Literacy Level

The overall financial literacy level is found out to be 51.75%, whereas the cut-off score for financial literacy is 49.50%. Therefore, an average respondent is financially literate.

Table 15: Component-wise Financial Literacy Level

Component	Literacy Level
Savings and Borrowings	62.38%
Insurance	50%
Investments	39.29%
Decision Making	47.52%
Opinions/Habits	55.96%
TOTAL	51.75%
<i>Cut-off Score for Financial Literacy</i>	<i>49.50%</i>

B. Associations

This study has observed that Financial Literacy is related to the Educational Qualification, the Educational Stream, and the Family Income; but it is not related to Age, Gender, or the Studying/Working Status.

Table 16: Summary of Associations among Variables

Demographic Variable	P Value	Whether or Not Related to Financial Literacy
Age	0.213	Not Related
Gender	0.455	Not Related
Educational Qualification	0.012	Related
Educational Stream	0.017	Related
Studying/Working Status	0.295	Not Related
Family Income	0.001	Related

C. Comparison of Results with Existing Literature

Agarwalla et al. (2013) found that family income, gender, and living in a joint family significantly influenced financial knowledge. Higher family income had a positive influence on financial knowledge, with this influence being more substantial for higher income. The gender difference was striking, as the financial knowledge of women was lower than that of men. Results also revealed that post-graduation and marriage were related to the trait of high financial knowledge, while not budgeting was related to the trait of low financial knowledge.

Financial literacy varies widely depending on various demographic and socioeconomic variables, according to Sekar and Gowri (2015). Gender, education, income, marital status, and the number of dependents were the determinants of financial literacy, but age was not part of the variables.

Sharma (2017) found that financial literacy levels were significantly different between male and female respondents and between rural and urban respondents, with higher financial literacy being in urban parts. Respondents' qualifications and parents' qualifications also affected financial knowledge in Punjab.

Gupta (2017) states that male respondents displayed a higher level of financial literacy compared to women, which could be attributed to a man's greater decision-making power in a family setup. There was also a noticeable difference based on income because higher earners had a higher level of financial literacy. The study also revealed an improvement in

financial literacy with an improvement in education, while age does not influence financial literacy.

This study concludes that there is a significant relationship between financial literacy and the following demographic factors:

- Educational Qualification,
- Educational Stream, and
- Family Income.

The study also found that financial literacy is not significantly related to:

- Age
- Gender
- Studying/Working Status

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